

CLAIMS

1. Method for producing and separately coiling at least two individual, simultaneously extruded tubes (20, 30) by means of a single coiling device, said method comprising

-- extrusion of a strand of a composite profile (10) comprising at least two individual tubes (20, 30) of the same or different outside and inside geometries, such that the individual tubes (20, 30), which are arranged side by side, are connected with each other by a junction (40) of minimal width,

-- feeding the strand of the composite profile (10) emerging from the extrusion press (A) at a strand exit speed (v1) into a speed regulation device (D), in which the strand of the composite profile (10) is adjusted to a speed (v2),

-- then, to produce separate strands of the individual tubes (20, 30), separation of the junctions (40) of the strand of the composite profile (10) in the longitudinal direction of the composite profile (10) in a separating device (E), and

-- then feeding the strands of the individual tubes (20, 30) separately at unaltered speed (v2) to a coiling device (S), in which the strands of the individual tubes (20, 30) are each wound separately on a coil (S1, S2), such that the two coils

(S₁, S₂) of the coiling device (S) are moved by a common drive at a coiling speed (v₃) that is equal to the speed (v₂).

2. Method in accordance with Claim 1, characterized by the fact that the strand of the composite profile (10) emerging from the extrusion press (A) passes through a surface coating station (B) and then a drying/hardening and/or cooling station (C) before being fed into a speed regulation device (D), such that the surface coating (B) preferably consists of a zinc coating and/or a solder coating and/or a flux coating.

3. Method in accordance with Claim 1 or Claim 2, characterized by the fact that the strand of the composite profile (10) emerging from the extrusion press (A) or the coated and/or cooled strand is temporarily coiled on a coil and is uncoiled at a later time or in a different location and then fed into a separating device (E).

4. Method in accordance with Claims 1 to 3, characterized by the fact that the speed regulation device (D) is a dancer device or a torque control device.

5. Method in accordance with any of Claims 1 to 4, characterized by the fact that the strand of the single-piece composite profile (10) is pulled apart in the separating device (E) by horizontal zipper-like opening or by vertical opening of the connection between the adjacently arranged strands of the

individual tubes (20, 30) at the junction (40).

6. Method in accordance with any of Claims 1 to 4, characterized by the fact that the strand of the single-piece composite profile (10) is broken apart in the separating device (E) by bending the two adjacently arranged strands of the individual tubes (20, 30) about the center (M) of the junction (40).

7. Method in accordance with Claim 6, characterized by the fact that the strand is broken apart by repeated bending by means of shaped rollers (R), and that the bending is limited to maximum bending angles (α , β).

8. Method in accordance with any of Claims 1 to 7, characterized by the fact that the separation of the strand in the separating device (E) is effected solely by a wedge-shaped tool (K) or is additionally assisted by said tool.

9. Method in accordance with any of Claims 1 to 8, characterized by the fact that before it is fed into the separating device (E), the strand of the composite profile (10) is subjected to material strengthening, which preferably involves strain hardening by the application of bending stress or tensile stress.

10. Method in accordance with Claim 1, characterized by the fact that the individual tube strands (20, 30) are separately fed by rollers (F, G) and displacing arms (H) to the coiling device (S) at unaltered speed (v2) and without plastic deformation.

11. Method in accordance with Claim 1, characterized by the fact that the individual tube strands (20, 30) are each separately wound at unaltered speed (v2) on a coil (S1, S2), said coils (S1, S2) of the coiling device (S) being arranged side by side or one above the other.

12. Method in accordance with Claim 1, characterized by the fact that the individual tube strands (20, 30) are separately wound at unaltered speed (v2) on different winding regions of one coil.

13. Method in accordance with any of Claims 1 to 12, characterized by the fact that the fin formed on the individual tube strands (20, 30) by the separation of the strand of the composite profile (10), is smoothed by rollers or sliding blocks or scraping blades.